NATIONAL INSTITUTES OF HEALTH
WARREN GRANT MAGNUSON CLINICAL CENTER
NURSING and PATIENT CARE SERVICES

Procedure: Percutaneous Nephrostomy Tube Care

Approved:

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PRO: Percutaneous Nephrostomy Tube Care

Purpose: To maintain a patent, sterile urinary drainage system.

Essential Information

1. A nephrostomy tube is placed directly into the renal pelvis of the kidney. The nephrostomy tube exits through the skin of the back and is attached to a collection bag.
2. A Nephro-Ureto stent is placed directly into the renal pelvis of the kidney. It has an internal tube ending in the bladder and an external tube exiting through the skin of the back that is attached to a collection bag.

I. Dressing Change

A. **Supplies**:

Disposable under pad
Non-sterile gloves
Sterile gloves
Sterile cotton tip applicators (4)
Sterile 0.9% Sodium Chloride
Skin Prep (optional)
4 X 4 gauze or, 4 X 5 transparent dressing
Sterile 2x2's
Tape
Pouch belt
Drainage set
Anchoring device i.e., StatLock™ (optional)
Barrier film (optional)

B. STEPS	KEY POINTS
1. Assemble supplies and don non-sterile gloves	
2. Assist patient to a side-lying position with nephrostomy site up.	
3. Place disposable under pad next to nephrostomy site and don non-sterile gloves.	
4. Anchor the nephrostomy tube with a small piece of tape and empty the collection bag.	4. Taping minimizes tension on the tube and prevents accidental dislodging of the tube.
5. Carefully remove old dressing, first loosening edges of dressing and moving to the center of dressing.	5. Avoid dislodging the tube. A sterile cotton-tip applicator placed on the catheter may help stabilize the catheter while the dressing is being removed.
6. Assess exit site for redness, edema, moisture, or drainage.	6. These observations may indicate infection or nephrostomy tube malfunction.
7. Remove soiled gloves and wash hands. Don sterile gloves.	
8. Cleanse exit site with 0.9% sodium chloride using cotton tip applicators. Start at the exit site and work outward in a circular motion proceeding outwards approximately 3-4 inches. Repeat X2.	8. If there is crusted matter at exit site, carefully loosen and remove matter using a cotton-tip applicator moistened with 0.9% sodium chloride.
9. Apply skin prep then sterile dressing. Apply barrier film (optional).	
10. Secure the tube with new tape or anchoring device such as StatLock™ to the skin below the dressing, taping approximately 2 1/2 "from the exit site. (Remove old tape) Assist patient to apply pouch belt.	10. Anchoring the nephrostomy tube will reduce risk of dislodging or kinking tubing. Addition of belt further decreases the risk of trauma or dislodging nephrostomy tube. When showering, tape and pouch belt should remain intact.

11. Remove gloves and wash hands.
12. Date and initial dressing.
13. Document assessment of site, type of dressing applied, devices used to secure the nephrostomy tube, and patient's tolerance of procedure.

II. Drainage Bag Change

A. **Supplies**

Non-sterile gloves
Alcohol swabs
Drainage set (ex: TRU-CLOSE® gravity drainage bag)
Sterile scissors
For patients with irrigation orders:
3 way stopcock
Infusion cap
Disposable under pad

B. STEPS	**KEY POINTS**
1. Assemble supplies and open new collection bag & connecting tubing	1. Assure that all equipment is available and the tubing is cut to the desired length prior to disconnect the old equipment.
2. For tubes that can be modified in length, disconnect new connecting tubing from bag and cut tubing to desired length based on individual patient preference	
3. Reconnect tubing to drainage bag	
4. For patients requiring irrigation of nephrostomy tube, consider adding at this time a 3-way stopcock and infusion cap to the proximal end of connecting tubing.	4. Adding a 3 way stopcock with a infusion cap will assure a closed system for irrigation
5. Assist patient to a comfortable position	
6. Place disposable under pad under drainage bag.	
7. Don non-sterile gloves.	
8. Swab the end of the old drainage tubing attached to the nephrostomy tube using alcohol pad/swab.	
9. Disconnect the drainage bag from the nephrostomy tube.	
10. Attach a clean drainage bag with new connecting tubing & verify flow of urine.	
10. Secure tubing and bag unit with a Velcro belt around the waist.	
11. Label the bag with the date and time of last bag and tubing change.	

III. Irrigation of Percutaneous Nephrostomy Tube

A. Supplies

10 mL syringe with blunt (syringe cannula)
5 mL of preservative-free 0.9% sodium chloride for injection
Disposable under pad
Non-sterile gloves
Alcohol swabs
Male adapter cap of needle-less system

B. STEPS	KEY POINTS
1. If obstruction is suspected, check tubing first for kinks and/or dislodgment.	1. There will be no need to irrigate if obstruction is mechanical. Check for urine flow.
2. If 3-way stopcock is not in place go to the procedure section "Drainage bag change" and add 3-way stopcock and new connecting tubing and new drainage bag.	
3. Assemble equipment and draw up 5 mL of preservative-free 0.9% sodium chloride for injection.	3. Do not irrigate with more than 5 mL.
4. Place under pad beneath patient.	
5. Turn stopcock off to nephrostomy tube.	
6. Wash hands and don non-sterile gloves.	
7. Clean port with alcohol swab.	
8. Attach syringe with cannula into the infusion port of the 3-way stopcock.	
9. Turn stopcock off to drainage bag.	
10. Gently instill free 0.9% sodium chloride.	10. Do not aspirate or force. If resistance is met, reposition patient and try again. If resistance continues, disconnect and notify physician.
11. Turn stopcock off to nephrostomy tube.	
12. Remove syringe	
13. Turn stopcock off to infusion port of stopcock allowing gravity flow of urine into bag.	13. If urinary flow does not resume within one (1) hour, troubleshoot nephrostomy tube for kinks, dislodgment, or stopcock off to bag. If no cause can be found, notify physician for further evaluation.
14. Record flush volume as intake.	

IV. Obtaining Urine Specimen from Percutaneous Nephrostomy Tube

A. Equipment

Alcohol swabs
Drainage bag with connecting tubing
Sterile scissors
Disposable under pad
Non-sterile gloves
Sterile specimen cup
Label

B. STEPS	KEY POINTS
1. Follow the procedure section, "Drainage bag change"	
2. Facilitate gravity flow of urine collection into bag by ensuring bag is held below level of kidneys.	2. Urine cannot be aspirated from the renal pelvis for collection, but must drain naturally.
3. When sufficient volume of urine has collected, open drainage bag valve, and drain urine into sterile collection cup without allowing tip of bag to touch inside of cup.	
4. Close drainage bag valve.	

5. Prepare and label specimen.

6. Document that a specimen was obtained in approved electronic record or on an approved flow sheet.

V. References:

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